

2006

*Commonwealth
of Massachusetts*

**PUBLIC
EMPLOYEE
RETIREMENT
ADMINISTRATION
COMMISSION**

INVESTMENT REPORT

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The Honorable Deval Patrick
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LETTER FROM THE EXECUTIVE DIRECTOR

May 9, 2007

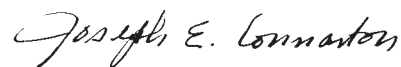
As the legislature considers Governor Patrick's comprehensive policy initiative related to the assets of the 106 retirement systems of the Commonwealth, the Commission is pleased to release this Investment Report for 2006. We will soon disseminate the Annual Report for 2006. We are currently in the process of finalizing its development. We anticipate it will be ready for distribution by mid-June.

The systems and the boards that are responsible for their management are at a crossroads. Governor Patrick's proposal to establish an investment and funding standard for the boards underscores the importance of pension financing in the overall fiscal health of the Commonwealth and its cities and towns. The interest generated by that recommendation may lead to improved and strengthened local pension systems, or it may ultimately lead to dramatic changes in the very structure that has served system members and taxpayers so well for so long. Which of these results is realized will be largely determined by the combined action of the entire pension community in the months ahead.

Legislative proposals focusing on comparative performance between local systems and the Pension Reserves Investment Trust Fund (PRIT) have generally had two components: investment return and actuarial funded ratio. This report delineates investment returns for several periods: 2006, 2002-2006 inclusive, 1997-2006 inclusive, and since inception through 2006. The funded ratios are as of the date of the most recent actuarial valuation available to PERAC. Any actuarial valuations received after April 1, 2007 have not been included.

I hope this information is helpful in assisting interested parties in taking a thoughtful approach to the various reforms before the Legislature this year.

Sincerely,



Joseph E. Connarton
Executive Director

PERFORMANCE REVIEW AND ANALYSIS

As of December 31, 2006, the composite asset allocation for the 78 local systems that invested predominantly on their own was: 44.7% Domestic Equity, 15.6% International Equity, 1.1% Emerging Markets Equity, 23.9% Fixed Income (including high yield, TIPS, and international), 6.9% Real Estate, 0.2% Timber, 2.1% Alternative Investments, 2.7% Hedge Funds, 1.1% PRIT Core, and 1.3% Cash. Assets in these systems totaled \$17.7 billion. The composite allocation of these systems is consistent with reported average asset allocations from

national surveys of state and local pension plans.

Nevertheless, there is a wide divergence in our local systems' asset allocations compared to the composite levels. For instance, allocations to domestic equity ranged from 19% to 65% and allocations to international

equity ranged from zero (five systems) to 39%. While several systems had allocation in excess of 10% to real estate, fourteen systems had no exposure to this asset class, including 6 systems with assets in excess of \$100 million. Forty systems had at least some exposure to alternative investments, but only 11 of these had meaningful allocations of 3% or more; 38 systems had essentially no exposure.

Twenty-six local systems with assets totaling almost \$2.0 billion invested entirely (or, in two cases, predominantly) with the PRIT Core Fund as of year-end. The asset allocation of that \$46.7 billion fund as of December 31, 2006, was 25.2% Domestic Equity, 3.5% Portable Alpha, 20.4% International

Equity, 6.4% Emerging Markets Equity, 19.6% Fixed Income (including 10.0% US bonds, 4.7% TIPS and commodities, and 4.8% High Yield), 10.1% Real Estate (with leverage, 11.0%); 3.1% Timber, 6.5% Alternative Investments, and 5.1% Hedge Funds. In its below average allocation to domestic equities and above average exposure to non-traditional asset classes, PRIT's asset allocation is not typical of public pension funds nationwide. In addition to the 26 systems that invested essentially all their assets in the PRIT Core Fund, 12 systems had partial

investments in the PRIT Core Fund and 40 systems participated in one or more of the PRIT Fund's segmentation options.

Performance for 2006 among the 104 local systems ranged from 7.52% to 18.09%. The median return was 13.99% and the composite return was 16.07%. For the 78 systems that invested on

their own, the median return was 13.22% and the composite return was 13.94%.

The median return for the 26 local systems that invested totally with PRIT approximated that of the Fund itself, which was 16.72%. Internal cash positions or cash flows may have enhanced or subtracted from the returns of individual systems relative to PRIT's basic return. In recent years, a fundamental fact of institutional investing involving endowment funds, foundations, or pension funds, is that larger entities have performed better than smaller ones. Accordingly, the PRIT Fund's size has enabled it to invest meaningfully in a wider range of asset classes than many of the local systems, and its clout has

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enabled it to gain access to the top tier of managers in these nontraditional asset classes, particularly in alternative investments. Thus, the PRIT Fund's performance in 2006 was enhanced by its holdings in Alternative Investments, up 28.2%; Emerging Markets Equity, up 28.1%; and Real Estate, up 24.8%. PRIT's international equity investments provided a 26.6% return.

Although they've lagged behind the PRIT Fund, the local systems that invest on their own have, on the whole, still done well. As in previous years, the 2006 median return (13.22%) for the non-PRIT local public pension systems was within the range of the median returns of the public fund universes of several national databases: New England Pension Consultants public funds median, 13.5%; T.U.C.S., 13.2%; and Northern Trust public funds universe, 13.5%.

Among the non-PRIT systems, eight of the ten best performers had investment consultants (another had a consultant through the end of 2005) and the common characteristics of these systems were good-to-excellent performance by investment managers and diversified asset allocation, highlighted by healthy exposure to international equity and real estate. Systems on this list included one of the smaller systems in the state as well as several medium and larger-sized systems. Dramatically demonstrating that size is not necessarily a detriment if a board has a well-diversified asset allocation as well as strong portfolio managers, the \$27 million Clinton Retirement System — by achieving strong returns from international equity (+27%) and real estate (+37%) as well as from large cap value and small cap equity — not only led all the other local systems

in 2006 but also outperformed the PRIT Fund. An additional four of the ten best systems also have less than \$100 million in assets. The fact that these ten systems, as well as several others, registered performance well above national public fund universe medians vividly demonstrates that there are no meaningful regulatory obstacles to boards achieving above-average performance.

Eight of the ten worst performing systems were relatively small systems, ranging in size from \$8.6 million to \$76 million in assets. Only three of these lagging systems used an investment consultant. Five of these systems had asset allocations that consisted totally of domestic equity and bonds; others had below average combined exposure to international equity, real estate, and other nontraditional asset classes. Two of these systems justify their conservative asset allocations by having high funded ratios, but others have no such rationale. Another common thread was disappointing returns from domestic equity, encompassing not only poor large cap stock selection but also insufficient exposure to the better performing small and mid-cap sectors. Some of 2006's lagging systems had been among the best performers in 2005 but suffered the downside of having one investment manager for all assets despite the fact that this manager's equity performance has been highly erratic over time. One system with reasonable asset allocation and a diversified roster of investment managers was dragged down by having a large cap growth manager, representing about two thirds of the system's domestic equity holdings, who recorded a negative return for the year.

2006 Returns & Annualized Past Returns (In Percent)

Funded Ratios

	Return (2006)	5-Year Return	10-Year Return	Return (Since 1985)	Funded Ratio	Date of Most Recent Valuation
ADAMS	8.37	6.30	7.39	9.42	90.7%	1/1/2006
AMESBURY	14.76	8.15	8.27	9.35	56.3%	1/1/2006
ANDOVER	14.34	5.98	8.23	10.06	78.1%	1/1/2004
ARLINGTON	14.39	8.22	8.58	10.40	69.1%	1/1/2006
ATHOL	11.50	6.23	6.86	8.37	49.4%	1/1/2005
ATTLEBORO	13.11	10.43	9.41	10.30	62.7%	1/1/2004
BARNSTABLE COUNTY	14.29	8.59	7.83	8.61	60.8%	1/1/2006
BELMONT	15.17	9.54	9.16	10.42	52.9%	1/1/2006
BERKSHIRE REGIONAL	16.62	11.42	10.44	10.70	76.8%	1/1/2005
BEVERLY	7.52	8.79	9.66	10.16	56.2%	1/1/2006
BLUE HILLS REGIONAL	16.14	11.32	9.30	10.15	66.7%	1/1/2006
BOSTON	15.07	9.23	8.87	10.43	64.4%	1/1/2006
BRAINTREE	13.93	9.25	9.16	10.07	71.6%	1/1/2006
BRISTOL COUNTY	14.57	8.51	10.19	10.34	62.4%	1/1/2005
BROCKTON	12.55	9.11	10.03	10.63	86.7%	1/1/2006
BROOKLINE	14.09	9.42	9.27	10.45	63.7%	1/1/2006
CAMBRIDGE	13.22	8.29	9.89	10.77	85.4%	1/1/2006
CHELSEA	16.84	9.69	6.59	9.15	43.9%	1/1/2005
CHICOPEE	11.36	7.73	8.21	9.67	56.7%	1/1/2006
CLINTON	18.09	10.61	8.99	9.29	60.2%	1/1/2005
CONCORD	13.67	8.59	8.50	9.87	90.5%	1/1/2006
DANVERS	11.80	7.02	8.18	9.42	73.4%	1/1/2005
DEDHAM	16.86	11.55	10.74	11.43	78.7%	1/1/2006
DUKES COUNTY	14.59	8.19	7.83	8.40	63.8%	1/1/2005
EASTHAMPTON	16.80	11.69	8.12	9.62	66.6%	1/1/2006
ESSEX REGIONAL	15.80	8.09	9.01	10.38	69.6%	1/1/2006
EVERETT	16.62	8.33	7.06	9.85	33.6%	1/1/2006
FAIRHAVEN	16.69	11.56	10.69	11.15	70.0%	1/1/2005
FALL RIVER	12.69	6.32	7.76	9.92	57.1%	1/1/2006
FALMOUTH	13.93	7.73	8.53	10.58	66.4%	1/1/2006
FITCHBURG	12.37	6.44	7.29	8.88	52.2%	1/1/2006
FRAMINGHAM	16.83	11.07	10.17	11.10	65.2%	1/1/2006
FRANKLIN REGIONAL	13.40	7.34	8.91	9.37	68.4%	1/1/2006
GARDNER	16.66	11.66	10.81	11.29	62.2%	1/1/2006
GLOUCESTER	14.54	8.95	8.89	10.60	49.5%	1/1/2006
GREATER LAWRENCE	9.27	5.54	7.19	7.93	99.3%	1/1/2005

2006 Returns & Annualized Past Returns (In Percent)

Funded Ratios

	Return (2006)	5-Year Return	10-Year Return	Return (Since 1985)	Funded Ratio	Date of Most Recent Valuation
GREENFIELD	13.73	8.30	9.01	9.91	68.4%	1/1/2005
HAMPDEN COUNTY REG.	12.98	7.37	9.08	10.21	60.6%	1/1/2005
HAMPSHIRE COUNTY	15.24	7.96	8.29	9.67	58.8%	1/1/2006
HAVERHILL	14.62	10.19	11.44	11.84	60.8%	1/1/2006
HINGHAM	16.92	11.64	10.76	11.08	68.0%	1/1/2006
HOLYOKE	11.87	7.05	9.19	10.81	62.3%	1/1/2005
HULL	16.49	10.11	8.88	9.10	42.9%	1/1/2006
LAWRENCE	12.53	7.39	7.42	9.03	43.7%	1/1/2004
LEOMINSTER	16.63	9.74	9.20	9.85	73.7%	1/1/2006
LEXINGTON	14.50	9.74	9.12	10.59	88.4%	1/1/2006
LOWELL	16.91	9.26	10.84	10.93	58.5%	1/1/2006
LYNN	11.03	8.27	7.97	9.45	46.7%	1/1/2006
MALDEN	9.11	7.34	10.64	10.91	71.3%	1/1/2006
MARBLEHEAD	16.85	11.67	10.52	11.01	83.3%	1/1/2006
MARLBOROUGH	13.35	8.94	8.56	9.77	61.6%	1/1/2005
MASS HOUSING FINANCE	11.57	7.60	8.53	8.71	91.6%	1/1/2005
MASSPORT	15.23	9.42	8.74	10.61	103.1%	1/1/2006
MASS TURNPIKE	13.66	7.81	8.21	9.79	78.1%	1/1/2006
MASS WATER RESOURCES	13.66	9.81	9.16	8.66	100.0%	1/1/2005
MAYNARD	7.99	8.97	8.67	9.04	63.8%	1/1/2004
MEDFORD	13.22	8.79	9.59	10.41	64.9%	1/1/2006
MELROSE	12.50	8.75	8.40	9.91	59.4%	1/1/2006
METHUEN	11.79	7.13	8.00	9.29	61.2%	1/1/2004
MIDDLESEX	13.47	7.51	7.21	9.81	47.9%	1/1/2006
MILFORD	9.78	9.51	9.26	9.92	73.3%	1/1/2005
MILTON	15.53	11.05	10.49	11.24	78.2%	1/1/2005
MINUTEMAN REGIONAL	16.92	11.74	10.81	11.43	108.6%	1/1/2005
MONTAGUE	16.76	11.64	10.77	10.88	77.8%	1/1/2006
NATICK	11.61	6.44	6.21	9.47	66.6%	1/1/2006
NEEDHAM	16.69	11.50	10.71	11.67	75.0%	1/1/2005
NEW BEDFORD	13.94	10.31	9.37	9.22	46.1%	1/1/2004
NEWBURYPORT	16.55	11.72	9.12	9.58	55.7%	1/1/2006
NEWTON	12.53	8.10	8.83	10.17	66.2%	1/1/2006
NORFOLK COUNTY	14.16	8.25	8.22	10.12	61.2%	1/1/2005
NORTH ADAMS	9.10	7.64	10.15	10.60	67.1%	1/1/2005
NORTH ATTLEBORO	12.12	8.06	8.56	9.79	82.6%	1/1/2006

2006 Returns & Annualized Past Returns (In Percent)

Funded Ratios

	Return (2006)	5-Year Return	10-Year Return	Return (Since 1985)	Funded Ratio	Date of Most Recent Valuation
NORTHAMPTON	9.35	7.22	9.98	10.34	62.3%	1/1/2005
NORTHBRIDGE	16.76	11.70	10.79	11.18	74.7%	1/1/2006
NORWOOD	11.99	8.73	8.95	10.38	87.9%	1/1/2005
PEABODY	11.32	6.90	8.43	10.19	58.0%	1/1/2006
PITTSFIELD	12.04	6.87	8.09	9.69	51.5%	1/1/2006
PLYMOUTH	13.99	8.77	8.02	10.17	61.0%	1/1/2005
PLYMOUTH COUNTY	15.54	9.83	9.66	10.96	60.8%	1/1/2006
PRIM	16.72	11.61	10.51	11.51	Not Applicable	Not Applicable
QUINCY	13.28	8.92	9.48	9.78	58.3%	1/1/2005
READING	16.84	11.63	10.72	11.06	70.0%	7/1/2005
REVERE	16.21	11.24	10.21	9.83	50.2%	1/1/2006
SALEM	15.03	7.83	8.63	9.78	50.8%	1/1/2006
SAUGUS	16.82	11.58	10.78	10.99	62.0%	1/1/2005
SHREWSBURY	12.77	8.94	9.74	10.53	71.3%	1/1/2006
SOMERVILLE	11.92	9.05	9.03	9.93	59.1%	1/1/2004
SOUTHBRIDGE	13.18	8.17	9.04	9.90	52.1%	1/1/2006
SPRINGFIELD	16.48	7.73	7.78	9.84	42.6%	1/1/2005
STATE	16.88	11.67	10.52	11.33	85.1%	1/1/2007
STATE TEACHERS	16.87	11.66	10.53	11.35	67.2%	1/1/2006
STONEHAM	16.76	11.60	9.57	10.39	60.7%	1/1/2005
SWAMPSCOTT	11.53	8.05	9.92	10.64	52.5%	1/1/2006
TAUNTON	12.77	8.84	9.31	11.15	66.4%	1/1/2006
WAKEFIELD	16.75	11.60	10.75	11.63	71.5%	1/1/2006
WALTHAM	13.93	8.34	7.88	10.26	51.9%	1/1/2005
WATERTOWN	15.59	8.50	8.46	9.74	59.3%	1/1/2006
WEBSTER	12.56	9.13	8.78	9.17	45.0%	1/1/2006
WELLESLEY	16.23	10.40	10.14	12.23	103.2%	1/1/2006
WEST SPRINGFIELD	8.19	6.90	8.04	9.18	54.0%	1/1/2004
WESTFIELD	11.57	6.74	7.80	9.87	72.1%	1/1/2005
WEYMOUTH	15.83	10.59	10.41	11.85	65.2%	1/1/2005
WINCHESTER	15.05	10.35	10.04	10.99	75.6%	1/1/2005
WINTHROP	15.84	9.19	8.27	10.23	62.9%	1/1/2005
WOBURN	13.64	8.70	9.35	10.81	72.8%	1/1/2005
WORCESTER	15.00	9.47	9.86	10.58	79.8%	1/1/2006
WORCESTER REGIONAL	13.05	6.74	8.42	9.74	63.5%	1/1/2004
COMPOSITE	16.07	10.79	10.10	10.95	Not Applicable	Not Applicable

NOTES:

